LODI CITY COUNCIL

Carnegie Forum

305 West Pine Street, Lodi

"SHIRTSLEEVE" SESSION

Date: Tuesday, August 1, 2006

Time: 7:00 a.m.

For information regarding this Agenda please contact:

Jennifer M. Perrin
Interim City Clerk
Telephone: (209) 333-6702

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Informal Informational Meeting

A. Roll call by City Clerk

B. Topic(s)

B-1 Presentation of Developer Responsibility for Costs Associated with Electric Line/Service Extension and Possible Changes (EUD)

C. Comments by public on non-agenda items

D. Adjournment

Pursuant to Section 54954.2(a) of the Government Code of the State of California, this agenda was posted at least 72 hours in advance of the scheduled meeting at a public place freely accessible to the public 24 hours a day.

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Jennifer M. Perrin
Interim City Clerk

MEMORANDUM
Office of George F. Morrow, Director

TO: Blair King, City Manager
FROM: George F. Morrow, Electric Utility Director
DATE: July 27, 2006
SUBJECT: Developer Cost Responsibility for Electric Line/Service Extension

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Currently, the cost of electric distribution system expansion is shared between the Lodi Electric Utility Department (EUD) and developers/customers requiring new or expanded service.

EUD is responsible for furnishing and installing the 12kV (primary voltage) underground main feeders, overhead distribution system (including transformers and conductors), power substations and the transmission facilities for 60kV and above. EUD also furnishes and installs electric service (120/240V) conductor (e.g. wire).

Developers provide trenching, excavation, backfill and compaction for 12kV and 120/240V underground systems. The developer also installs all required substructures such as vaults, conduits, transformer pads, pedestals, etc. (In the rare circumstance that a new development is not contiguous to EUD's system, the developer may also be required to pay to extend the electric system to the edge of the development.)

Staff reviewed the policies of other electric utilities in the region to ascertain how the cost of extending and/or expanding electric utility service to new customers was being handled. Electric utility service extension costs generally fall into two categories covered by EUD's Rules & Regulations No. 15 (Extension of Facilities – Primary/Secondary Voltage) and No. 16 (Service Connections, etc).

Tables 1 and 2 below document the findings of EUD's review of other nearby utility service policies related to how electric distribution system expansion costs are being charged to new developments:

Table 1: Extension of Primary/Secondary Facilities (Rule 15)

Question: Is the Developer responsible for the cost of primary/secondary electric extensions?

Utility	Trench & Backfill	Substructures	Conductors & Transformers	Substations & Transmission
City of Roseville	Yes	Yes	Yes	Being Considered
Modesto Irrigation District	Yes	Yes	Yes	No
Turlock Irrigation District	Yes	Yes	Yes	No
Sacramento Municipal Utility District	Yes	Yes	Yes	Sometimes
Pacific Gas & Electric Company	Yes	Yes	Yes/No	Sometimes
Lodi Electric Utility Department - Current	Yes	Yes	No	No
Lodi Electric Utility Department - Proposed	Yes	Yes	Yes	Yes

Table 2: Service Connections & Facilities on Customer's Premises (Rule 16)

Question: Is the Developer responsible for the cost of providing & installing service connections & facilities?

Utility	Trench & Backfill	Substructures	Conductors & Transformers
City of Roseville	Yes	Yes	Yes
Modesto Irrigation District	Yes	Yes	Yes
Turlock Irrigation District	Yes	Yes	Yes
Sacramento Municipal Utility District	Yes	Yes	Yes
Pacific Gas & Electric Company	Yes	Yes	Yes/No
Lodi Electric Utility Department - Current	Yes	Yes	No
Lodi Electric Utility Department - Proposed	Yes	Yes	Yes

Tables 1 and 2 show that the majority of surveyed utilities place most/all of the cost of providing new/additional services on the requesting customer/developer. The Sacramento Municipal Utility District and the City of Roseville are examples of electric utilities that have moved to a full cost recovery model in recent years.

As noted earlier, EUD places cost responsibility on developers/customers only for conduit and substructure costs on the project site. EUD is responsible for remaining costs such as providing/installing conductor (e.g. electric cable) and transformation equipment on the project site.

It should be noted that the "generic" cost of providing additional substation capacity (and associated transmission facilities to integrate the substation into the electric network) has generally not been assigned to developers by utilities in the area. Some area utilities (i.e. SMUD and PG&E), however, will charge any direct substation costs if clearly incurred as the result of a development. A brief survey of utilities nationally found that a growing number of electric utilities also charge for substation-related costs incurred.

What has been EUD's historical cost experience for expanding its electric system to provide new/enhanced service?

The actual cost of expanding the City's electric distribution system to serve new developments (residential and commercial) for fiscal years 2002 through 2005 is shown in Table 3. The four-year average of combined total cost of improvements is approximately $545,000 of which the City incurred 67% of the cost (~$365Kyear) while the developer was responsible for 33% of extension costs (~$180K/year).

Table 3: Costs of Electric Distribution System Expansion

YEAR	Paid by City	Paid by Developers
	Line Extensions & Services	Substructures
2002	$ 300,484.00	$ 141,453.00
2003	$ 304,795.00	$ 186,614.00
2004	$ 398,753.00	$ 190,544.00
2005	$ 458,925.00	$ 204,715.00
Total	$ 1,462,957.00	$ 723,326.00
Average	$ 365,739.25	$ 180,831.50
Percentage	67%	33%

Note: Costs of transmission and substation facilities are not included.

Staff was also interested in knowing how electric extension costs have been shared between EUD and developers for residential subdivisions only. Table 4 shows the cost of improving the electric distribution system to serve various residential subdivisions in recent years. The calculated total cost per residential lot is approximately $1,800 in which 58% was paid by EUD (~$1050/lot) and 42% was incurred by developers (~$750/lot).

Table 4: Costs of Electric Distribution System Expansion -- Residential Subdivisions

Cost Code	Number of Lots for Residential Subdivision						Total	Cost per Lot	Percentage
	11	74	77	27	28	16	233		
Line Extensions/Services	$24,260	$65,802	$62,384	$32,053	$18,022	$42,264	$244,785	$1,051	58%
Substructures	$22,115	$42,329	$61,892	$19,295	$16,568	$14,462	$176,661	$758	42%

Note: Costs of transmission and substation facilities are not included.

It should be noted that in both expense tabulations above, the cost of commissioning the developer-furnished/installed streetlights by the City and the cost of improving the City's transmission and substation facilities were not included.

Staff believes that the City should consider modifying EUD's Rules & Regulations (15 and 16) to allow the utility to capture the full cost of expanding its electric distribution system. These costs include distribution line extensions, substructures, transformation and service connections. Costs of improvements for the expansion of transmission and substation facilities should also be borne by the developer -- note that these two costs are not addressed at all in current cost sharing rules.

Table 5 on the next page illustrates the calculation of substation costs and of a "full cost" developer assessment for a typical (200A) residential property.

Table 5: Substation/Transmission Cost Calculations

I. 60kV to 12kV Distribution Substation:			
Effective Capacity =		48.00	MVA
No. of Distribution Feeders =		8	Circuits
No. of Power Transformers =		2	Units
Substation Lot Size =		40,000	sq ft
Distribution Substation Cost =	$	7,444,500	
II. 60kV Transmission Line:			
Typical Line Length to the Substation =		5.00	miles
60kV Transmission Cost =	$	420,000	
III. Typical Distribution Substation Facility Cost:			
Total (Substation + Transmission) Cost =	$	7,864,500	
Cost per kVA =	$	163.84	2006$

Summary

Presently, developers/customers requiring expanded electric service in Lodi are generally responsible only for the cost of underground substructures (i.e. conduit and vaults). Many electric utilities have moved to a "full cost recovery" model for expanding electric facilities.

Looking at historical costs, EUD has been paying about ⅔ of the cost to extend new service while developers/customers have been paying about one-third. For recent larger-scale residential developments, EUD has paid about 58% of costs with developers being responsible for the remainder.

Under a "full cost recovery" model, developers would pay all future costs for electric service extensions. A developer's cost to extend services to a typical residential lot (200A) under this approach would increase from $750/lot to about $1800/lot. In addition, Staff suggests that new development outside current City boundaries (i.e. as of 8/1/06) be assessed a charge for the addition of future substations and associated transmission lines. In 2006 dollars, the cost of a standard substation is calculated to be $163.84 per KVA (kilovolt-ampere) which would add $1146.91 to the cost of a typical 200A residential electric service.

Cost Summary for Typical Residential Unit (200A)

Substructure Costs	$750	Presently paid by Developer
Line Extension & Service Costs	$1,050	Presently paid by EUD
Substation/Transmission	1,147	Presently EUD Responsibility
Fully Allocated Costs	**$2,947**	**Proposed to be paid by Developer**

Please let me know if you have any questions or require any additional information on this subject.

George F. Morrow
Electric Utility Director